
**स्नेहक, औद्योगिक तेल एवं संबद्ध उत्पादों के
सामान्य वर्गीकरण**

भाग 3 फैमिली एफ
(स्पाइंडल बैयरिंग, बैयरिंग और जुड़े हुये क्लच)
(पहला पुनरीक्षण)

**Classification of Lubricants,
Industrial Oils and Related Products
(Class L)**

Part 3 Family F
(Spindle Bearings, Bearings and Associated Clutches)
(First Revision)

ICS 75.100

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FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards after the draft finalized by the Lubricants and their Related Products Sectional Committee had been approved by the Petroleum, Coal and Related Products Division Council.

This standard was initially published in 1989 by deriving considerable assistance from ISO 6743-2 : 1981 'Lubricants, industrial oils and related products (Class L) — Classification — Part 2 : Family F (spindle bearings, bearings and associated clutches)', issued by the International Organization for Standardization (ISO).

The classification described in this standard is intended for the guidance to the consumers and manufacturer of lubricants, industrial oils and related products.

This standard should be read in conjunction with IS 11159 (Part 1). In this first revision, clause for references is updated. Otherwise the standard remains as modified ISO 6743-2 : 1981 'Lubricants, industrial oils and related products (Class L) — Classification — Part 2: Family F (spindle bearings, bearings and associated clutches)'.

*Indian Standard***CLASSIFICATION OF LUBRICANTS, INDUSTRIAL OILS
AND RELATED PRODUCTS (CLASS L)****PART 3 FAMILY F
(SPINDLE BEARINGS, BEARINGS AND ASSOCIATED CLUTCHES)***(First Revision)***1 SCOPE**

This Indian standard (Part 3) prescribes a detailed classification of family F (spindle bearings, bearings and associated clutches) for lubricants, industrial oils and related products (Class L) covered under IS 11159 (Part 1).

2 REFERENCES

The following Indian Standards contain provisions which through reference in this text constitute the provisions of the standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

<i>IS No.</i>	<i>Title</i>
9466 : 2020	Viscosity classification for industrial liquid lubricants (<i>first revision</i>)
11159 (Part 1) : 1920	Classification of lubricants industrial oils and related products: Part 1 Class L (<i>first revision</i>)

3 EXPLANATION OF SYMBOLS USED

3.1 This detailed classification of family F (*see* Table 1) has been established by defining the categories of products required for the main applications of this family and at the final point for subdivision by referring to composition of corresponding products.

3.2 Each category is designated by a symbol consisting of a group of letters, which together constitute a code.

NOTE — The first letter of the code (F) identifies the family of the product considered but the second letter taken separately has no significance of its own.

3.3 The designation of each category can be supplemented by the addition of viscosity grades according to IS 9466.

3.4 In this classification system, products are designated in a uniform manner. For example, a particular product may be designated in complete form, that is, IS-L-FD 68, or in an abbreviated form, that is L-FD 68, the number indicates the viscosity grade according to IS 9466.

**Table 1 Classification of Lubricants, Industrial Oils and Related Products (Class L) Family F
(Spindle Bearings, Bearings and Associated Clutches)**

(Clause 3.1)

Code Letter	General Application	More Specific Application	Composition and Special Properties	Symbol IS-L	Typical Application	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
F	Spindle bearing, bearings and associated clutches	a) Spindle bearings, bearings and associated clutches	a) Refined mineral oil with improved properties, for example, anti-corrosion and anti-oxidation, which may be obtained by additives	FC	Pressure, bath and oil mist (aerosol) lubrication of plain or rolling bearings and associated clutches	Where clutches are involved antiwear or EP additives should be avoided because of the risk of corrosion
		b) Spindle bearings, bearings	b) Refined mineral oil with improved properties, for example, anti-corrosion, anti-oxidation and anti-wear, which may be obtained by additives	FD	Pressure, bath and oil mist (aerosol) lubrication of plain or rolling bearings	

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